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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,553	08/17/2001	James E. Hebert	5160-08	3908
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HOGAN & HARTSON LLP ONE TABOR CENTER, SUITE 1500 1200 SEVENTEEN ST. DENVER, CO 80202			EXAMINER JUNTIMA, NITTAYA	
			ART UNIT 2663	PAPER NUMBER

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

<b>Office Action Summary</b>	<b>Application No.</b> 09/932,553	<b>Applicant(s)</b> HEBERT, JAMES E.	
	<b>Examiner</b> Nittaya Juntima	<b>Art Unit</b> 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This action is in response to the amendment filed on 6/6/2005.
2. The objections to the drawings, and claims are withdrawn in view of applicant's amendment.
3. Claims 1-15 are rejected under 35 U.S.C. 103(a), and claim 15 is also rejected under 35 U.S.C. 112, second paragraph.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation "the server" in line 16. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-6, 8-13, and 15 are rejected under 35 U.S.C. 103(a) as being obvious over an admitted prior art (the background of the invention in the specification) in view of Tosey et al. ("Tosey") (USPN 6,392,990 B1).

Regarding claims 1 and 8, an admitted prior art teaches a communication adapter system (communication adapter system, e.g. a private network, page 1, ll 28-30) for connecting a client (a client, page 1, ll 28-30) to a network (the communication network, page 1, ll 28-30), the system comprising:

a server (a server) having a memory (since a software application is running of a server, a memory must be included to store the software application) electrically connected to the client (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

a primary I/O board (a primary I/O board) electrically connected to the server and having a primary network interface card, the primary NIC having an inherent primary I/O port for connecting to the network, the primary NIC selectively enabling active transfer of data from the client to the network through the primary I/O port (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

a secondary I/O board (a passive I/O board) electrically connected to the server and having a secondary NIC (a passive NIC), the secondary NIC having an inherent secondary I/O port for connecting to the network, the secondary NIC selectively enabling active transfer of data from the client to the network though the secondary I/O port (page 3, ll 33-page 4, ll 2);

a primary switch (a primary switch) electrically connected to the primary I/O port and the network (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

a secondary switch (a passive switch) electrically connected to the secondary I/O port and the network (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-page 4, ll 2); and

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program signals (a software application) stored in the memory of the server (page 2, ll 1-2).

The admitted prior art further teaches that program signals defining an executable program for:

generating a connectivity signal (a UNIX system command) to the primary NIC to test connectivity at least from the primary I/O board to the primary NIC (page 4, ll 4-9);

monitoring the primary I/O port to detect a response signal (since the response to the query must be received through the I/O port, page 4, ll 4-9, therefore, monitoring of the primary I/O must be included);

configuring the primary NIC to disable active transfer of data if connectivity is not detected (page 4, ll 4-9);

configuring the secondary NIC to enable the active transfer of data if connectivity is not detected (failover operation is performed, page 4, ll 4-9).

However, the admitted prior art fails to teach (i) generating the connectivity signal to the primary switch, (ii) monitoring the primary I/O port to detect a response signal a predetermined time period after the generation of the connectivity; and (iii) configuring the primary NIC to disable and the secondary NIC to enable the active transfer of data if the response signal is not detected within the time period as recited in the claim.

In a similar network architecture, as shown in Figs. 2 and 4A, Tosey teaches generating a connectivity signal (a ping) to the primary switch (hub A 22) to test connectivity from the network computing device 21 to the primary switch (since the computing device 21 transmits an ICMP or ping link test to a peer network computing device connected to hub 22 in Fig. 2, col. 6,

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ll 46-65 and col. 7, ll 35-43, therefore, the link test must be sent to hub 22 in order to be forwarded to the peer device, and because Tosey further teaches that "The present invention also detects the failure of other network connecting components...such as the hub," col. 4, ll 36-41 and "This invention also allows the network computing device 21 to recover when other connecting network components fails, such as ...hub A22," col. 4, ll 64-col. 5, ll 3, therefore, the link test must also be used to test connectivity to the hub 22), monitoring the primary input/output of the primary NIC 25, Fig. 1 to detect a response signal from the primary switch (hub 22 in Fig. 2) within a predetermined time period ( $T_2$  seconds) after the generation of the connectivity signal (the response from the peer device is determined by device 21, col. 7, ll 44-55, and since the peer device is connected to device 21 via hub 22, therefore, the response from hub 22 must be monitored), configuring the primary NIC 25 to disable active transfer of data and configuring the secondary NIC 26, Fig. 1 to enable the active transfer of data if the response signal is not detected within the time period (col. 8, ll 1-4 and 7-21).

Given the teaching of Tosey, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include the teaching of Tosey such that (i) generating the connectivity signal to the primary switch, (ii) monitoring the primary I/O port to detect a response signal a predetermined time period after the generation of the connectivity; and (iii) configuring the primary NIC to disable and the secondary NIC to enable the active transfer of data if the response signal is not detected within the time period would be included as recited in the claim. The suggestion/motivation to do so would have been to enable the server to recover when other connecting network component fails as taught by Tosey (col. 4, ll 61-67).

Regarding claims 2 and 9, the admitted prior art does not explicitly teach that the network is an FDDI network. However, the admitted prior art teaches that the most common communication adapter system used today is an interface system to an FDDI network (page 1, ll 28-33 and page 3, ll 1-9). Therefore, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include that the network is an FDDI network. The suggestion/motivation to do so would have been to take advantage of the intrinsic redundancies of the FDDI network such that the data transfer with a client would be maintained even if a network device should fail (the admitted prior art, page 3, ll 6-9), and such a change in a field of use involves only routine skill in the art.

Regarding claims 3 and 10, although the admitted prior art teaches generating a connectivity signal to the primary NIC to test connectivity from the primary I/O board to the primary NIC (page 4, ll 4-9), the admitted prior art fails to teach generating a connectivity signal to a remote device on the network to test connectivity from the primary I/O board through the primary switch and to the remote device.

However, Tosey teaches generating a connectivity signal (a ping) to a remote device (a peer device connected to hub A, i.e. another network computing device, Fig. 2) on the network to test connectivity from the network computing device A, Fig. 1 through the primary switch (hub A, Fig. 2) and to the remote device (a peer device) (col. 4, ll 36-44, col. 6, ll 46-61, col. 7, ll 44-47).

Given the teaching of Tosey, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include generating a connectivity signal to a remote device on the network to test connectivity from the primary I/O board through the

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primary switch and to the remote device as recited in the claim. The suggestion/motivation to do so would have been to enable the server to recover when other connecting network component fails as taught by Tosey (col. 4, ll 61-67).

Regarding claims 4 and 11, the admitted prior art fails to teach that the connectivity is a ping signal. Tosey teaches that the connectivity is a ping signal (col. 6, ll 46-49 and 56-61). Therefore, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include that the connectivity is a ping signal. The suggestion/motivation to do so would have been to enable the device generating a ping signal, which is the most desirable protocol, to determine whether a destination is reachable (col. 6, ll 56-65).

Regarding claims 5-6 and 12-13, the admitted prior art fails to teach that the program comprises transferring network information including a logical IP address from the primary NIC to the secondary NIC.

However, Tosey teaches that the program (the administrative software, col. 4, ll 52-55) comprises transferring network information including a logical IP address (a mobile IP address) from the primary NIC (NIC 25, Figs. 5A and 5B) to the secondary NIC (NIC 26, Figs. 5A and 5B) (col. 8, ll 7-39).

Given the teaching of Tosey, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include that the program comprises transferring network information including a logical IP address from the primary NIC to the secondary NIC. The suggestion/motivation to do so would have been to enable the recovery process and allow the programs at the application layer to continually send information through the secondary NIC (col. 8, ll 10-21 and 37-39).



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Claim 15 is a communication adapter system claim corresponding to system claim 6, and is therefore rejected under the same reason set forth in the rejection of claim 6.

7. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being obvious over an admitted prior art (the background of the invention in the specification) in view of Tosey et al. ("Tosey") (USPN 6,392,990 B1), and further in view of Liu et al. ("Liu") (USPN 6,243,838 B1).

Regarding claims 7 and 14, the combined teaching of the admitted prior art and Tosey fails to teach that the program comprises notifying a systems administrator of a failure.

However, Liu teaches notifying a systems administrator of a failure (Abstract, col. 2, ll 20-34 and 50-58).

Therefore, it would have been obvious to one skilled in the art to modify the combined teaching of the admitted prior art and Tosey to include that the program comprises notifying a systems administrator of a failure. The suggestion/motivation to do so would have been to allow the remedial actions to be promptly taken as taught by Liu (col. 2, ll 10-14).

### ***Response to Arguments***

8. Applicant's arguments filed 6/6/2005 have been fully considered but they are not persuasive.

In the remarks regarding claim 1, the applicant argued that the combination of applicant's background and Tosey fails to teach or suggest each element of claim 1.

In response, an admitted prior art teaches *a communication adapter system* (communication adapter system, e.g. a private network, page 1, ll 28-30) for connecting *a client*

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(a client, page 1, ll 28-30) to *a network* (the communication network, page 1, ll 28-30), the system comprising:

*a server* (a server) having *a memory* (since a software application is running of a server, a memory must be included to store the software application) electrically connected to the client (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

*a primary I/O board* (a primary I/O board) electrically connected to the server and having a primary network interface card, the primary NIC having an inherent primary I/O port for connecting to the network, the primary NIC selectively enabling active transfer of data from the client to the network through the primary I/O port (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

*a secondary I/O board* (a passive I/O board) electrically connected to the server and having a secondary NIC (a passive NIC), the secondary NIC having an inherent secondary I/O port for connecting to the network, the secondary NIC selectively enabling active transfer of data from the client to the network though the secondary I/O port (page 3, ll 33-page 4, ll 2);

*a primary switch* (a primary switch) electrically connected to the primary I/O port and the network (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-33);

*a secondary switch* (a passive switch) electrically connected to the secondary I/O port and the network (page 1, ll 28-pge 2, ll 4, and page 3, ll 26-page 4, ll 2); and

*program signals* (a software application) stored in the memory of the server (page 2, ll 1-2).

The admitted prior art further teaches that program signals defining an executable program for:

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generating *a connectivity signal* (a UNIX system command) to the primary NIC to test connectivity at least from the primary I/O board to the primary NIC (page 4, ll 4-9);

monitoring the primary I/O port to detect *a response signal* (since the response to the query must be received through the I/O port, page 4, ll 4-9, therefore, monitoring of the primary I/O must be included);

configuring the primary NIC to disable active transfer of data if connectivity is not detected (page 4, ll 4-9);

configuring the secondary NIC to enable the active transfer of data if connectivity is not detected (failover operation is performed, page 4, ll 4-9).

However, the admitted prior art fails to teach (i) generating the connectivity signal to the primary switch, (ii) monitoring the primary I/O port to detect a response signal a predetermined time period after the generation of the connectivity; and (iii) configuring the primary NIC to disable and the secondary NIC to enable the active transfer of data if the response signal is not detected within the time period as recited in the claim.

In a similar network architecture, as shown in Figs. 2 and 4A, Tosey teaches generating *a connectivity signal* (a ping) to the primary switch (hub A 22) to test connectivity from the network computing device 21 to the primary switch (since the computing device 21 transmits an ICMP or ping link test to a peer network device connected to hub 22 in Fig. 2, col. 6, ll 46-65 and col. 7, ll 35-43, therefore, *the link test must be sent to hub 22* in order to be forwarded to the peer device, and because Tosey further teaches that “The present invention also detects the failure of other network connecting components...such as the hub,” col. 4, ll 36-41 and “This invention also allows the network computing device 21 to recover when other connecting

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network components fails, such as ..hub A22,” col. 4, ll 64-col. 5, ll 3, therefore, *the link test must also be used to test connectivity to the hub 22*), monitoring the primary input/output of the primary NIC 25, Fig. 1 to detect *a response signal* from the primary switch (hub 22 in Fig. 2) within *a predetermined time period* ( $T_2$  seconds) after the generation of the connectivity signal (the response originated by the peer device is determined by device 21, col. 7, ll 44-55, and since the peer device is connected to device 21 via hub 22, therefore, *the response sent from hub 22 must be monitored*), configuring the primary NIC 25 to disable active transfer of data and configuring the secondary NIC 26, Fig. 1 to enable the active transfer of data if the response signal is not detected within the time period (col. 8, ll 1-4 and 7-21).

Given the teaching of Tosey, it would have been obvious to one skilled in the art to modify the teaching of the admitted prior art to include the teaching of Tosey such that (i) generating the connectivity signal to the primary switch, (ii) monitoring the primary I/O port to detect a response signal a predetermined time period after the generation of the connectivity; and (iii) configuring the primary NIC to disable and the secondary NIC to enable the active transfer of data if the response signal is not detected within the time period would be included as recited in the claim. The suggestion/motivation to do so would have been to enable the server to recover when other connecting network component fails as taught by Tosey (col. 4, ll 61-67).

Because there is no structural nor functional difference between the primary switch and Tosey hub 22 in Fig. 2 as explained above, and as admitted by the applicant that “The link test passes through the hub 22 but is not responded to by hub 22 which merely passes a response from a peer device to the computing device 21” on page 10, lines 13-15 of the reply, hence the combined teaching of the admitted prior art and Tosey does teach every element recited in the

claim. Further, the applicant failed to point out an error in the motivation. Therefore, the rejections of independent claim 1, and independent claims 8 and 15 also with similar limitations are sustained.

### *Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima  
August 19, 2005  
*NJ*

*Ricky Ngo*  
RICKY NGO  
PRIMARY EXAMINER  
8/22/05